GLOBAL CLIMATE OBSERVING SYSTEM

WMO UNESCO IOC International Science Council UN environment

GCOS SC-27
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Item 8.2

GCOS STEERING COMMITTEE
TWENTY-SEVENTH SESSION

GCOS SC-27, 28–31 October 2019
Paris, France

GCOS and GBON

(Submitted by the GCOS Secretariat)

Summary and Purpose of Document:

The document informs about the Global Baseline Observing Network (GBON) in the context of the regional workshops and is asking to decide on collaboration with WIGOS on that matter.

Action Proposed:

Adopt the draft Decision 8.2.

DRAFT DECISIONS

Draft Decision 8.2 (SC-27)

The Steering Committee decides, that:

1. GCOS should work with WIGOS to determine:
    a. how the networks GSN, GUAN and BSRN can contribute as a baseline climate monitoring network to the GBON.
    b. whether the current performance monitoring of the GCOS networks can be incorporated within the WIGOS WDQMS.
    c. The relationship of the GCOS reference networks to the GBON
2. GCOS is continuing jointly with WIGOS to explore regional implementation issues and to identify important observations, for example in holding regional workshop
3. the GCOS secretariat will report progress to the related panels.

Background

1. The 2016 GCOS Implementation Plan[1], endorsed by the WMO[2] and UNFCCC[3], in action G8, asked GCOS to hold regional workshops. The first joint GCOS/WIGOS Regional Workshop, held in Fiji (October 2017), planned how to establish and maintain a regional network of upper air stations that will lead to regional and global improvements in weather forecast and climate modelling in a regional with limited resources. Based on this meeting, WMO has established the Global Baseline Observing Network (GBON)[4] to extend this globally. Subsequent joint GCOS/WIGOS workshops in Uganda (2018) and Belize (2019) have explored associated issues that including sustainability, international data exchange, support by WMO and international funding.
2. There are several GCOS networks that would contribute to GBON including the Global Surface network (GSN), the Global Upper Air Network (GUAN) and the Baseline Surface Radiation Network (BSRN).
3. WIGOS and GCOS have adopted a tiered approach to networks with reference stations providing the highest quality, traceable observations, baseline networks that provide the global coverage at the required accuracy and comprehensive networks that provide more spatial detail but less precision. The reference stations allow the baseline network to be linked to standards and quantified uncertainties[5].

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[1] The Global Observing System for Climate: Implementation Needs, 2016, GCOS-200
[2] Decision 14 (EC-69) WMO 2017
[3] FCCC/SBSTA/2015/L.18 Research and Systematic Observation and Decision 19/CP.22 Implementation of the global observing system for climate.
[4] WMO Draft Resolution 6.1(1)/1 (Cg-18)
[5] Manual on WIGOS (WMO-No. 1160, Appendix 2.1)